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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 1 of

Complete if Known	
Application Number	09/932,196
Filing Date	August 17, 2001
First Named Inventor	H. Holden Thorp
Group Art Unit	1741
Examiner Name	Unknown
Attorney Docket Number	5470.277

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.	U.S. Patent Document Number	U.S. Patent Document Kind Code (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	1	3,845,033		Harnden et al.	10/29/1974	
	2	5,656,611		Kabanov et al.	08/12/1997	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.	Foreign Patent Document Office	Number	Kind Code (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T
	3	PCT	WO 95/06056		University of Medicine & Dentistry of New Jersey	03/02/1995		

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T
	4	Karpinski, Zenon J., et al., *Electrochemical Studies of Iodine in an Aluminium Chloride-Butylpyridinium Chloride Ionic Liquid*, J. Electroanal. Chem., Vol. 178, pp. 281-294 (1984)	
	5	Hyk, Wojciech, et al., *Physiochemical Consequences of Generating a Thin Layer of Ionic Liquid at Microelectrode Surface in Undiluted Redox Liquid*, J. Phys. Chem. B, Vol. 102, pp. 577-584 (1998)	
	6	International Search Report for International Application Serial No. PCT/US01/25718 dated 08/23/2002	

Examiner Signature		Date Considered	10/27/04

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	1	6,128,214		Kuekes et al.	10/03/2000	
	2	6,256,767		Kuekes et al.	07/03/2001	

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	3	Adleman, Leonard M., *Molecular Computation of Solutions to Combinatorial Problems*, Science, **Vol. 266**, pp. 1021-1024 (11 November 1994)	
	4	Beckman, Kenneth B., et al., *Oxidative Decay in DNA*, The Journal of Biological Chemistry, **Vol. 272, No. 32**, pp. 19633-19636 (August 8, 1997)	
	5	Chao, Shuchi, et al., *Solid-State Microelectrochemistry: Electrical Characteristics of a Solid-State Microelectrochemical Transistor Based on Poly(3-methylthiophene)*, J. Am. Chem. Soc., **Vol. 109**, pp. 2197-2199 (1987)	
	6	Dickinson, Enders, et al., *Effect of Position of Polyether Attachment on the Electron Self-Exchange Activation Barrier Energies of Redox Polyether Hybrid Molten Salts*, J. Phys. Chem. B, **Vol. 103**, pp 11028-11035 (1999)	
	7	Dickinson, Enders, et al., *Hybrid Redox Polyether Melts Based on Polyether-Tailed Counterions*, J. Am. Chem. Soc., **Vol. 121**, pp. 613-616 (1999)	
	8	Elghanian, Robert, et al., *Selective Colorimetric Detection of Polynucleotides Based on the Distance-Dependent Optical Properties of Gold Nanoparticles*, Science, **Vol. 277**, pp. 1078-1081 (22 August 1997)	
	9	Fink, Hans-Werner, et al., *Electrical conduction through DNA molecules*, Nature, **Vol. 298**, pp. 407-410 (1 April 1999)	
	10	Hall, Daniel B., et al., *Oxidative DNA damage through long-range electron transfer*, Nature, **Vol. 382**, pp. 731-735 (22 August 1996)	
	11	Henle, Ernst S., et al., *Formation, Prevention, and Repair of DNA Damage by Iron/Hydrogen Peroxide*, The Journal of Biological Chemistry, **Vol. 272, No. 31**, pp. 19095-19098 (August 1, 1997)	
	12	Hopfield, J.J., et al., *A Molecular Shift Register Based on Electron Transfer*, Science, **Vol. 241**, pp. 817-820 (12 August 1988)	
	13	Johnston, Dean H., et al., *Cyclic Voltammetry Studies of Polynucleotide Binding and Oxidation by Metal Complexes: Homogeneous Electron-Transfer Kinetics*, J. Phys. Chem., **Vol. 100**, pp. 13837-13843 (1996)	
	14	Johnston, Dean H., et al., *Electrochemical Measurement of the Solvent Accessibility of Nucleobases Using Electron Transfer between DNA and Metal Complexes*, J. Am. Chem. Soc., **Vol. 117**, pp. 8933-8938 (1995)	
	15	Johnston, Dean H., et al., *Trans-Dioxorhenium (V)-Mediated Oxidation at Indium Tin-Oxide Electrodes: Voltammetric Detection of DNA Cleavage in Solution*, Inorg. Chem., **Vol. 33**, pp. 6388-6390 (1994)	
	16	Jortner, Joshua, et al., *Charge transfer and transport in DNA*, Proc. Natl. Acad. Sci. USA, **Vol. 95**, pp. 12759-12765 (October 1998)	
	17	Leone, Anthony M., et al., *An Ionic Liquid Form of DNA: Redox-Active Molten Salts of Nucleic Acids*, J. Am. Chem. Soc., **Vol. 123, No. 2**, pp. 218-222 (2001)	
	18	Lewis, Frederick D., et al, *Distance-Dependent Electron Transfer in DNA Hairpins*, Science, **Vol. 277**, pp. 673-676 (1 August 1997)	
	19	Lewis, Frederick D., et al., *Direct measurement of hole transport dynamics in DNA*, Nature, **Vol. 406**, pp. 51-53 (6 July 2000)	
	20	Manning, Gerald S., *The Molecular theory of polyelectrolyte solutions with applications to the electrostatic properties of polynucleotides*, Quarterly Reviews of Biophysics II, **Vol. 2**, pp. 179-246 (1978)	
	21	Meggers, Eric, et al., *Sequence Dependent Long Range Hole Transport in DNA*, J. Am. Chem. Soc., **Vol. 120**, pp. 12950-12955 (1998)	

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	22	Mirkin, Chad A., et al., *Semiconductors meet biology*, Nature, **Vol. 405**, pp. 626-627 (8 June 2000)	
	23	Mirkin, Chad A., *Programming the Assembly of Two- and Three-Dimensional Architectures with DNA and Nanoscale Inorganic Building Blocks*, Inorg. Chem., **Vol. 39**, pp. 2258-2272 (2000)	
	24	Okahata, Yoshio, et al., *Anisotropic Electric Conductivity in an Aligned DNA Cast Film*, J. Am. Chem. Soc., **Vol. 102**, pp. 6165-6166 (1998)	
	25	Payti, Radha, et al., *Voltammetry and Conductivity of a Polyether Pyridinium Room Temperature Molten Salt Electrolyte and of Its Polymer Electrolyte Solutions in Polydimethylsiloxane*, J. Electrochem. Soc., **Vol. 143, No. 2**, pp. 401-405 (February 1996)	
	26	Pirrung, Michael C., et al., *The Arrayed Primer Extension Method for DNA Microchip Analysis. Molecular Computation of Satisfaction Problems*, J. Am. Chem. Soc., **Vol. 122**, pp. 1873-1882 (2000)	
	27	Porath, Danny, et al., *Direct Measurement of electrical transport through DNA molecules*, Nature, **Vol. 403**, pp. 635-638 (2000)	
	28	Record, Jr., M. Thomas, et al., *Thermodynamic analysis of ion effects on the binding and conformational equilibria of proteins and nucleic acids: the roles of ion association or release, screening, and ion effects on water activity*, Quarterly Reviews of Biophysics II, **Vol. II**, pp. 103-178 (1978)	
	29	Ritchie, Jason E., et al., *Intermolecular Optical Electron Transfer in Polyether Hybrid Molten Salts of Mixed-Valent Ruthenium Complexes*, J. Am. Chem. Soc., **Vol. 122**, pp. 2964-2965 (2000)	
	30	Saito, Isao, et al., *Photoinduced DNA Cleavage via Electron Transfer: Demonstration That Guanine Residues Located 5' to Guanine Are the Most Electron-Donating Sites*, J. Am. Chem. Soc., **Vol. 117**, pp. 6406-6407 (1995)	
	31	Schuster, Gary B., *Long-Range Charge Transfer in DAN: Transient Structural Distortions Control the Distance Dependence*, Acc. Chem. Res., **Vol. 33, No. 4**, pp. 253-260 (2000)	
	32	Williams, Mary Elizabeth, et al., *Electron and Mass Transport in Hybrid Redox Polyether Melts: Co and Fe Bipyridines with Attached Polyether Chains*, J. Am. Chem. Soc., **Vol. 119**, pp. 1997-2005 (1997)	

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